

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/712,818	FERNALD ET AL.	
	Examiner	Art Unit	
	Douglas N. Washburn	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendment filed 14 November 2007.

2.  The allowed claim(s) is/are 1-8, 10-16, 18-21, 23, 25-34 and 36-54.

3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____.
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**DETAILED ACTION**

***Response to Amendment***

1 Applicant amendment overcomes §102(b) rejection of claims 26, 29, 30, 32, 34 and 37 and the rejection is withdrawn.

Applicant amendment overcomes §103(a) rejection of claims 1-6, 8, 11, 14-16, 18, 19, 21, 23, 25, 27, 28, 38 and 39 and the rejection is withdrawn.

Applicant amendment overcomes objection to claims 7, 10, 12, 13, 20, 31, 33 and 36 and the objection is withdrawn.

***Allowable Subject Matter***

2 Claims 1-54 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 1 recites, in part, "a signal processor, responsive to said strain signals, for determining the slope of an acoustic ridge in the k- $\omega$  plane (emphasis added) to provide which provides a signal indicative of at least one parameter of the process flow flowing within the pipe". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claims 2-8, 10-16, 18-21, 23, 25 and 39 depend from claim 1.

Claim 26 recites, in part, "a strap disposable about an outer circumference of a pipe, and a piezoelectric film material having a pair of conductors disposed on opposing surfaces thereof **the piezoelectric film material having a thickness greater than 8 mm** (emphasis added), wherein the piezoelectric film material is attached to the strap which transfers the strain of the pipe to the piezoelectric film material to thereby provide a strain measurement indicative of a pressure disturbance within the pipe". This feature **in combination with the remaining claimed structure** avoids the prior art of record.

Claims 27-34 and 36-38 depend from claim 26.

Claim 40 recites, in part, "**at least three strain sensors disposable about an outer circumference of the pipe at different axial locations along the pipe** (emphasis added), each of the strain sensors providing a respective strain signal indicative of a pressure disturbance within the pipe at a corresponding axial position". This feature **in combination with the remaining claimed structure** avoids the prior art of record.

Claims 41-54 depend from claim 40.

It is these limitations, which are not found, taught or suggested in the prior art of record, and are recited in the claimed combination that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

3 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas N. Washburn whose telephone number is (571) 272-2284. The examiner can normally be reached on Monday through Thursday 6:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DNW

*JB*  
11/24/02  
JOHN E. BARLOW, JR.  
PRIMARY EXAMINER  
GROUP 210C